

Committee on Resources

Subcommittee on Fisheries Conservation, Wildlife and Oceans

Statement

**WRITTEN TESTIMONY OF
SALLY YOZELL
DEPUTY ASSISTANT SECRETARY OF COMMERCE
FOR OCEANS AND ATMOSPHERE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

**BEFORE THE
COMMITTEE ON RESOURCES
SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE AND OCEANS
U.S. HOUSE OF REPRESENTATIVES**

OCTOBER 27, 1999

Good morning, Mr. Chairman and members of the Subcommittee. My name is Sally Yozell and I am the Deputy Assistant Secretary for Oceans and Atmosphere at the Department of Commerce. Thank you for giving me the opportunity to testify today on H.R. 2090, the Exploration of the Seas Act. The National Oceanic and Atmospheric Administration

(NOAA) is willing to work with the Committee to accomplish the goals of H.R. 2090.

INTRODUCTION

Mr. Chairman, I would like to take a moment to talk about NOAA's important role in oceans research. More than thirty years ago, Congress adopted legislation calling for a comprehensive national program to explore the oceans and protect marine and coastal resources. This Act established the well-known Stratton Commission whose recommendations for national ocean policy continue to shape and influence U.S. domestic ocean policy today. Among other things, the Stratton Commission recommended the formation of NOAA. Since its creation, NOAA has supported an undersea science and technology program.

In his proposed Fiscal Year 2000 Budget for NOAA, the President requested increases for several programs which touch on the subject matter of today's hearing. I applaud this Committee for supporting the significant increase in funds we requested to begin modernization of the fisheries research fleet to better address resource assessments. I am disappointed, however, that the Congress did not fund the President's Lands Legacy and Year of the Ocean Initiatives to strengthen the Coastal Zone Management Program, to protect the National Marine Sanctuaries system, and to restore our Nation's coral reefs and fisheries habitat. I am especially concerned that Congress did not provide funds for the President's Exploring the Last Frontier Initiative which included \$3.1 million for four sea floor observatories and additional funds to continue the Sustainable Seas Expeditions partnership with the National Geographic Society.

The public agrees that we need to focus more resources on exploring the oceans. For example, in 1996 the Mellman Group conducted a nationwide survey to better understand the public's view of ocean policy issues. The results of that survey indicated that more than 80 percent of the public believe our oceans are threatened by human activity; 85 percent agree with the statement that the "federal government needs to do more to help protect the oceans"; and 75 percent believe ocean exploration is more important than space exploration.

Oceans, like outer space, do not belong to any one state but are an area of national interest and concern. Over 98 percent of the Nation's marine waters are federally owned or managed and it is the responsibility of the Federal government to encourage exploration and wise use of this vast realm. For instance, within NOAA the National Undersea Research Program (NURP) makes a variety of underwater vehicles and technologies available to scientists to explore and conduct research in the ocean. It is the most active program of its kind in the United States in terms of number of dives per year and undersea assets. In 1980, a National Research Council report guided the formation of NURP as it exists today.

The program consists of six National Undersea Research Centers around the country, hosted by academic or private institutions. These regional centers are funded through grants to universities and private institutions to increase cost-effectiveness and take advantage of regional expertise. NURP uses a peer review process to select the best proposals. The Centers are guided by NOAA's mission in determining national and regional goals.

Through NURP, funds are awarded to top oceanographic experts from all over the country. The program operates through formal agreements with government, private, and international programs. By taking advantage of faculty and students already in place, NOAA, through NURP, can focus the best minds available on the most pressing problems, at a fraction of the cost of supporting full-time dedicated staff. Our close partnership with academia encourages education and outreach opportunities. Over 200 undergraduate and graduate students each year explore the ocean on program projects. In addition, partnerships with the Navy, Japan, Russia and France have provided access to deep-sea systems for U.S. scientists.

Last year, with a \$5 million grant from the Richard and Rhoda Goldman Fund, NOAA partnered with the National Geographic Society to launch the Sustainable Seas Expeditions, a five-year project of deep water exploration and public education in NOAA's National Marine Sanctuaries. You will hear testimony later this morning from Dr. Sylvia Earle, National Geographic Explorer-in-Residence, who is leading the expeditions to the 12 marine sanctuaries. Dr. Earle is using the newly designed DeepWorker, a one-person submersible, capable of exploring to depths of 2000 feet. This type of new underwater technology will allow us to bring the ocean treasures of our sanctuaries to the public in ways never before possible.

NOAA, in partnership with the Navy and the National Science Foundation, funds the Woods Hole Oceanographic Institution's Deep Submergence Group. This group operates the National Deep Submergence Facility composed of the DSV Alvin and several remotely operated vehicles. The DSV Alvin is one of five undersea vehicles existing in the world today capable of carrying humans to the deep ocean. While the DSV Alvin is capable of reaching beyond 3,800 meters, the average depth of the oceans, it still cannot reach nearly 40 percent of the world's ocean floor.

The National Oceanographic Partnership Program (NOPP) was established in 1997 as a formal mechanism to coordinate and strengthen oceanographic efforts among NOAA and 11 other U.S. agencies involved in ocean activities. NOPP grew from the need to better understand our ocean and coastal areas to enhance our national security, economic growth, and quality of life. Led by a national Ocean Research Leadership

Council, the NOPP initiative has been successful to date in integrating national efforts in ocean science and technology.

NOAA is also a key member of the Ocean Principals Group, consisting of senior representatives from all civilian and military agencies with ocean-related activities. The Ocean Principals Group recently managed the Federal role in the Year of the Ocean. It has also made possible the national Year of the Ocean effort through establishment of a joint project agreement with the Heinz Center for Science, Economics and the Environment. This agreement provides a mechanism for coordination among "stakeholders" from government, private industry, non-government organizations, and the academic sector. After the National Ocean Conference the President created the Ocean Task Force, a federal interagency group that was charged with reporting on the current status of ocean-related programs within the Federal government. This report, "Turning to the Sea: America's Ocean Future," which I will discuss in more detail later in my testimony, includes contributions from over 60 international ocean experts.

One example of cooperative efforts in the international arena is the International Council for the Exploration of the Seas (ICES). ICES is a 19-nation organization that provides information and advice to member nation governments, including the United States, and international regulatory commissions for the protection of the marine environment and for fisheries conservation in the Atlantic Ocean.

In addition, the Oceans Act of 1999, pending before this Committee, would create a National Ocean Commission. This Commission would be composed of experts on ocean and coastal activities. The Commission would make recommendations to the Congress and the President for the responsible use and stewardship of ocean and coastal resources. We look forward to working with the Committee to address the Administration's concerns with the Commission.

THE NEED FOR FURTHER EXPLORATION OF THE SEAS

Some of the newest and most exciting areas of the ocean have only recently been discovered. The oceans are still a frontier area. The Mid-Ocean Ridge system, a mountain range stretching across all the basins of the ocean, is the largest single geographic feature on the surface of the globe, yet it was recognized as such only forty years ago. Discovery barely twenty years ago of vents and seeps surrounded by mineral deposits and unique life that exists without sunlight and oxygen, have revolutionized modern scientific theory about the origin and sustenance of life on Earth. These deep sea environments are populated by "extremophiles," organisms known for their ability to flourish in the world's most harsh environments. Their unique biology holds great potential for biomedical and commercial applications.

In spite of the discoveries and progress we have made, the United States needs to enhance its ability to explore, manage and protect the ocean and its resources. With the knowledge gained through the development of advanced technologies and observations and the active exploration of the oceans, NOAA will be able to better manage our marine resources. Several reports have recognized the need for more and better undersea research. In 1996, the National Research Council, from whom you will hear shortly, published a report on "Undersea Vehicles and National Needs." This study provides a strategy to guide and encourage the development and deployment of undersea vehicles and their applications in response to national interests. The panel noted with concern the waning support for ocean science and technology since the 1960s. Their recommendations called for a long term plan for federal undersea vehicles capabilities and enhanced technology development. It also called for combined government programs with industry and foreign partnerships and capital investment in undersea research vehicles and support vessels.

As I mentioned earlier, this year the federal Ocean Task Force, after consulting with 60 international ocean experts, reported to the President that the United States lacks the data, technology, and outreach to effectively understand and manage the oceans. The report recommends the establishment of a national strategy to expand undersea exploration.

The messages from these reports and others is clear - we need to do more.

WHAT IS NEEDED

Mr. Chairman, let me say that the goals outlined in H.R. 2090 are on target and we would like to thank Representative Greenwood and the Committee for drawing attention to the need for increased coordination with regard to the oceans. H.R. 2090 requires the Department of Commerce to contract with the National Academy of Sciences (NAS) panel to establish a Coordinated Oceanography Program Advisory Panel. The Panel would develop a report on "the feasibility and social value of a coordinated oceanography program." However, we believe this proposed activity is unnecessary, overly broad and overlaps with other ongoing efforts. As I mentioned earlier, NOAA, in partnership with various agencies and organizations, is already engaged in endeavors to create the coordinated oceanography program called for in H.R. 2090. We would welcome the advice of the NAS and others in bringing together the work of these many groups to develop an action plan focused on undersea exploration and research. The Ocean Task Force's report, "Turning to the Sea: America's Ocean Future," should serve as an appropriate outline for NAS and its partners to use in developing a detailed action plan with specific recommendations for enhancing undersea research and exploration. In the report, the Ocean Task Force made the following recommendations:

- expand undersea exploration, including more in-kind support by federal agencies for private ocean exploration initiatives,
- support for exploratory research in geographic areas, such as seafloor vents, and topical areas, such as discovery of new species,
- investment in cutting edge technologies, and
- development of ways to explore oceans remotely, for example, using seafloor observatories and sensors with real-time communications to shore.

We look forward to working with the Committee on an action plan which incorporates the recommendations of the Ocean Task Force on undersea exploration and research.

Mr. Chairman, the oceans remain the last great frontier of our planet for exploration and discovery. NOAA strives to understand the ocean and its resources in order to sustain a healthy environment and support a robust economy. However, as we enter the new millennium, we foresee the need to increase the science basis upon which our stewardship responsibilities are based. Not only must the science basis be increased, we will have to accomplish this cost-effectively and in the near term. Responsible stewardship will require a new understanding of the ocean—one that can only be gained through active exploration and research. We will have to become visionaries, and have the foresight to anticipate issues that are critical to the sustainability of marine resources. Greater understanding of our oceans will lead to wiser management of ocean resources. NOAA believes that these challenges are going to depend upon new discoveries, and upon the active exploration of the seas.

NOAA is convinced that the next age of ocean exploration in the new millennium will lead to unimaginable scientific discoveries. These new discoveries will not only expand knowledge of the seas, but will improve human stewardship of the ocean planet and the lives of all of us who live here.

Thank you very much for this opportunity to address the Committee. I would be happy to respond to any questions.

#